

ABSTRACT

ALKALOIDS FROM SOLANUM BICOLOR AND SOLANUM CATARACTAE

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This dissertation deals with the structure elucidation of the various natural products isolated from two Trinidad Solanum species. Chapter 1 reviews the existing literature on the chemistry of the genus Solanum in addition to the localisation, uses, biosynthesis and spectroscopic methods employed in the structural elucidation of steroidal alkaloids isolated from this genus.

Chapter 2 describes the investigation of stems and leaves of S. bicolor from which was isolated the known compound solamargine (XXXI). It also describes the isolation of the known compounds khasianine (LVII) and solasonine (XXXII) from investigation of the berries of the same plant.

Chapter 3 describes the investigation of S. cataractae. The plant yielded three very interesting solid compounds from a biosynthetic point of view. The major compound was identified as the novel 3-aminospirosolane (LVIII) while the other two minor compounds could only be tentatively identified from the available spectroscopic data as LX and LXI.